The more cynical will be surprised that four pages are devoted to the frustrations of general practice, while its delights, in Chapter VI, rate six pages. Here there is no envy of the work of others, the grass is not greener on the other side of the fence, but instead there is a thoughtful appraisal of general practice by one who clearly finds real satisfaction in its conduct.

Dr. Binns is particularly at home with patients whose disorders are emotionally based and is more sympathetically disposed than most to the recurrent "chronic attender" whose ailments are always with him and whose presence is always with us. He has failed, however, as have others before him, to find a satisfactory means of disposal for the tablets left with him by visiting representatives. Surely the prognosis for the fading hydrangea is best when tablets containing alum, not iron, are buried at its roots?

R. J. F. H. PINSENT.

PORPHYRIA

Diseases of Porphyrin Metabolism. By A. Goldberg, M.D., M.R.C.P.(Lond.), F.R.F.P.S.(Glas.), and C. Rimington, M.A., Ph.D.(Cantab.), D.Sc.(Lond.), F.R.S. (Pp. 231+xvi; illustrated. $9.75.) Springfield, Illinois: Charles C. Thomas. 1962.

This is a useful monograph which will be appreciated by physicians interested in metabolic diseases and by clinically orientated biochemists. Introductory chapters deal with the history, classification, distribution, and incidence of these diseases, and with the normal mechanisms of porphyrin-biosynthesis. About half of the book is devoted to a detailed discussion of the human diseases congenital (erythropoietic) porphyria, acute intermittent porphyria, and the hereditary and acquired forms of cutaneous hepatic porphyria. There is a good account of the porphyrias encountered in veterinary practice and their relationship to the problem of human porphyria congenita. The concluding chapter deals with experimentally induced porphyria in laboratory animals.

The value and pleasure of reading this well-produced monograph is enhanced by the realization that the authors have drawn extensively on their own wide personal experience in writing it.

R. W. E. WATTS.

RADIATION PROTECTION

Radiation Protection in Mammals. By John F. Thomson. (Pp. 212+vii. 62s.) New York: Reinhold Publishing Corporation. London: Chapman and Hall, Ltd. 1962.

It is not often that money is poured unstintingly into any field of biological research. It has been into "radiation protection." The ordinary scientist now has a review of the results.

In terms of practical yield per dollar (or megabuck) these results are nearly zero—which could well have been predicted by all but the most incurable optimists. Nevertheless under the artificial conditions of the laboratory mammals can be conditioned to withstand two or three times the normally lethal dose of high-intensity x- or γ-radiation. These artificial conditions consist of either temporary anoxia of a high degree or premedication with agents which to produce a useful result have to be given in doses uncomfortably close to the chemically lethal. Observations of this sort are of value not for their applicability but for their help in our understanding of the fundamental action of radiations on matter, living and non-living.

The author has made all this abundantly clear. After four introductory chapters outlining the known actions of radiations and pharmacological methods he discusses thiols, the action of which may be largely physico-chemical, other sulphur compounds, and agents which exert an effect mainly by their pharmacological action. There is a useful chapter on hypotheses and substantial lists of inactive as well as active substances.

Dr. John F. Thomson is to be congratulated on collecting all the information so far available within the confines of a monograph of modest size. It is refreshing in this age of congresses and symposia to find a book by a single author, and Dr. Thomson presents his material with clarity and distinction.

It is a great pity therefore that the publisher fails the author. The printing is not up to the standard of the text and misprints are all too common. The reviewer, however, got one laugh from "humoral" as the adjective of humerus.

J. F. LOUTIT.

INDIAN VIEW OF DERMATOLOGY

Practice of Dermatology. By Pran Nath Behl, M.B., B.S., M.R.C.P.(Edin.). (Pp. 505+xiv; illustrated. 35 rupees.) Bombay: Allied Pacific Private Ltd. 1962.

The incidence and course of skin diseases are very much affected by climatic, nutritional, genetic, and environmental factors. Since the main body of clinical dermatology was evolved in North-west Europe it is evident that it must be very considerably modified and shaped if it is to reflect the vastly different conditions of the Indian subcontinent. This is what makes Dr. Behl's book important and necessary. Dr. Behl himself has written the main bulk—twenty-seven chapters—with eight chapters from other authors, six of whom are Indian. As it is written from their own personal experience the book should therefore be of the greatest value to students and doctors, not only in India but in neighbouring countries where comparable conditions prevail.

The scope of the book is comprehensive, starting with anatomy, physiology, and clinical methods, and including sections on bacteriology, mycology, and pathology of the skin. The writing is concise and clear and the clinical descriptions vivid; practical details reflect the author's ability as a teacher and his own familiarity with the techniques described.

In many places one can see the difference of emphasis, sometimes even omissions, by comparison with standard European or American textbooks, for it is in a faithful description of the Indian scene that the outstanding quality of this work resides. Dr. Behl has done a service to Indian dermatology and I anticipate that this book will be widely read and valued.

F. RAY BETTLEY.

SPACE MEDICINE

Space Medicine. By Ursula T. Slager, M.D. (Pp. 388+xi; illustrated. 84s.) London: Prentice-Hall International, Inc. 1962.

A section on space medicine has usually been included in every textbook on astronautics, starting with Hermann Oberth in 1925. But most publications solely devoted to the subject are reports of symposia, and therefore not comprehensive. There have been two or three popular books, but this appears to be the first to cover the whole subject specially for readers familiar with the medical vocabulary. Each chapter ends with a summary and a bibliography that is entirely confined

to United States publications, with the single exception of the *Journal of the British Interplanetary Society*, and does not go beyond 1960.

The chapters are assembled in four groups. Part I, "The Ecology of Space," deals with atmospheric pressure, temperature environment, and radiations, both non-ionizing and ionizing. The latter are particularly thoroughly treated, with an extensive discussion of the ways in which they damage the human body. The author admits that these radiations are still a major problem: they "cannot even be realistically assessed," and "the biological effects of cosmic rays are still an enigma." The inner Van Allen radiation belt, she says, must be avoided altogether; it extends from 600 km. to 15,000 km. above the earth, "from 20° north to 20° south." But these are magnetic latitudes, and the author has not noticed that, once a day, the magnetic equator makes an angle of 35° with the ecliptic, the plane near which the moon and planets lie. In fact, both Cape Canaveral and Woomera lie well outside the magnetic latitudes mentioned. The radiations that accompany solar flares can be worse, the most dangerous of all, and if it is possible to plan to avoid them the author hopes "that space travel may just barely be within the limits of safety."

Part II, "The Biodynamics of Space Flight," deals with acceleration, weightlessness, noise, and vibration. Weightlessness is well and thoroughly treated; only the statement, based on experiments by Ballinger in aeroplanes in 1952, that "nodding or shaking the head during weightlessness produces no nausea . . ." has been disproved in the case of Major Titov. On the subject of vibrations recent work of the R.A.F. Institute of Aviation Medicine, especially that on the oscillation resonance periods of various parts of the body, is not mentioned.

Part III, "The Ecology of the Space Cabin," includes a good discussion of the difficulties of a "closed cycle" system using algae to regenerate the oxygen and feed on animal waste; this has worked well with mice for a month at a time but has not been tried out yet with human subjects. The author gives 314 days as the period beyond which a closed system like this shows an advantage over carrying stored food and oxygen. Finally comes a short section on life on other planets. The book is well worth its price for the great amount of information it contains, skilfully condensed and with good bibliographies.

A. E. SLATER.

THE HAZARDS OF COAL AND STEEL

Études de Physiologie et de Pathologie du Travail. Edited under the direction of G. Coppée, A. Houberechts, O. Lehmann, M. Mosinger, L. Pierquin, A. Policard, H. Vigliani, and O. Zorn. (Pp. 630; illustrated.) Luxembourg: Communauté Européenne du Charbon et de l'Acier. 1961.

The Treaty of Paris, establishing the European Coal and Steel Community, authorized the High Authority to finance research within the six member countries on the occupational hazards of the coal and steel industries. This particular power has been generously exercised. During the quinquennium 1956–60, 166 research projects received financial support at a total cost of $1.2m. These research projects are now reported in this large and lavishly produced volume. The subject matter is divided into eleven sections as follows: fundamental research on the pneumoconioses; cardio-respiratory physiopathology; diagnostic radiology of the pneumoconioses; the pneumoconioses in iron ore mines and in the steel industry; the treatment of silicosis and silicotuberculosis; dust measurement; carbon monoxide poisoning; work in heat and its effects on the workers; the control of noise; rehabilitation after accidents and industrial diseases; practical applications for industrial medical officers.

As a very wide range of research is covered it is hardly surprising that quality varies greatly. Among much interesting information some curious ideas are put forward. Pneumoconiosis and allied conditions occupy a dominant place. Industrial pulmonary diseases are pre-eminently preventable but prevention can only be achieved by a judicious combination of epidemiological (or field or applied) research and fundamental (or pure or laboratory) research and by the application of the results. The research projects on pneumoconiosis are virtually all concerned with laboratory research and research on selected hospital populations. Epidemiological research is jejune. One promising development recorded is the sustained and fairly successful effort to standardize the assessment of pulmonary function among experts of the six countries. Several sections are followed by extensive lists of references and a comprehensive list of papers is given at the end. This is not a book for the student—indeed, only the most dedicated of experts are likely to plough through it all, more especially as it exists only in French and German versions. A very few copies are available in this country. One has been lodged with the British Medical Association library and others have been sent to certain research centres that have provided observers for the subcommittees of the High Authority's Medical Research Committee.

J. ROGAN.

BILE-DUCT SURGERY

Chirurgie du Système du Canal Hépatique. By P. Mirizzi. (Pp. 203+vi; illustrated. 60 NF.) Paris: Masson et Cie, Editeurs. 1962.

Published in French, this monograph by Professor P. Mirizzi, of the University of Cordoba, Argentina, is noteworthy for the very fine radiographs of operative cholangiograms, an investigation to which the author has obviously devoted a great deal of his interest. Many of these are quite unusual, and they are accompanied by explanatory diagrams which are of first-class quality.

A full account of the various operative procedures which may be necessary in the surgery of the common bile-duct is given in the text and amply illustrated.

This book is one for the specialist, but it would also be of great use as a work of reference in a rather specialized field.

E. G. MUIR.

INTESTINAL SURGERY

Darmchirurgie. By Professor Dr. med. M. Reifferscheid. (Pp. 372+xv; illustrated. DM. 88.) Stuttgart: Georg Thieme Verlag. 1962.

Intestinal Surgery, Diagnosis, Indications, Technique and Prognosis is the full title of this book. In the preface the author points out that at the beginning of this century it was thought that the problems of intestinal surgery had all been solved, but that in spite of this many important advances have been made in recent years. Everybody will agree with this statement, but opinions may differ as to which have been the main advances. Undoubtedly improvement in pre- and post-operative